

Applicants submit that to establish a *prima facie* case of obviousness, the Examiner must show that the prior art references, when combined, teach or suggest all of the claim limitations. Brande fails to teach or suggest “a projection formed on said retaining ring.” Also, Masutani fails to make up for the deficient teachings of Brande. In particular, Brande discloses a screw 57 that extends through a hole 58 of a retaining ring 59 and a hole 60 of a seal 55. (See col. 4, lines 13-15.) The disclosure in Brande of the screw extending through the hole in the retaining ring would not have taught or suggested a retaining ring with a “projection formed” thereon because the screw 57 is not formed on the retaining ring 59, but instead, extends through the retaining ring. Thus, the applied references fail to teach or suggest all the elements of the claims.

Further, the recited projection provides benefits that are not accomplished by the multiple screws 57 of Brande. In particular, the projection of the present invention holds the lubricant supply device such it contacts the outer peripheral surface of the screw shaft, as described in claim 17. This permits the lubricant supply device to be secured to the screw shaft so a proper fastening force is applied to the screw shaft.

In contradistinction, in Brande, the seal 55 is fastened by the screws in such a way that the fastening force applied by the seal cannot be applied in the same manner as the present invention. If a lubricant supply device is fixed with screws, as in Brande, instead of a projection, as in the present invention, a gap may be formed between the inner diameter portion of the supply device and the outer diameter portion of the screw shaft, which could result in an insufficient supply of lubricant.

Moreover, the combination of Brande and Masutani does not disclose a “lubricant supply device.” The Examiner acknowledges that Brande does not disclose this element, and Applicants respectfully point out that Masutani also fails to disclose this element. In particular, the sliding member disclosed in Masutani does not “supply” lubricant. Instead, Masutani discloses

the use of “carbon fibers mixed with fluorine resin.” Although this material may result in a member that has low friction when in contact with another member, there is no disclosure that the material “supplies” lubricant. Instead, the material of Masutani appears to obtain its low-friction qualities from the particular solid materials that are used, but does not indicate that lubricant is “supplied,” as in the present invention.

With particular regard to claim 21, the Examiner asserts that the retaining ring 59 in Brande is fixedly secured to the nut member 14. However, this does not teach the recitations of claim 21, for the reasons given above, and because the screws 57 are not attached to the nut member 14, but instead, are attached to the outer end closure 23. (See col. 4, lines 11-15.) The outer end closure is a separate piece from the nut member 14.

Consequently, claims 17 and 23 are patentable over Brande in view of Masutani, and the rejection of claim 17 under 35 U.S.C. §103(a) should be withdrawn.

Dependent claims 18 and 21 also are patentable over the applied references, at least by virtue of their dependency on independent claim 17.

**35 U.S.C. §103 - Claims 19 and 22:**

The Examiner rejects claims 19 and 22 under 35 U.S.C. §103(a) as being unpatentable over Brande in view of Masutani and Wysong (U.S. Patent No. 3,669,460). Applicants respectfully traverse this rejection in view of the following remarks.

In making the rejection under 35 U.S.C. §103(a), the Examiner again relies on Brande and Masutani for the alleged teaching of the features of claim 17, and additionally relies on Wysong for the disclosure of a sealing member 20 having a cut part, and a spiral projection on the inside of the sealing member 20. However, the seal member of Wysong fails to make

up for the deficient teachings of Brande and Masutani. Specifically, the sealing member of Wysong is not taught or suggested to supply a lubricant, such that the seal member contacts an outer peripheral surface of a screw shaft and supplies lubricant thereto, nor is such a feature obvious in light of Wysong. Also, Wysong does not teach or suggest to “form a projection” on a retaining ring. Accordingly, the deficient teachings of Brande and Masutani are not obvious in light of Wysong.

Further, the seal in Brande is a felt, plate-shaped piece that is attached to the retaining member with screws. One skilled in the art would not have applied the sealing member 20 of Wysong to Brande, because the circular, hollow and ring-shaped element of Wysong is not intended to be held in place with axially extending screws. Further, if screws were to be placed through the sealing member 20 of Wysong, the sealing member would not conform to the threads of the carrier 10, because the screws would obstruct the spiral channels of the sealing member 20. Thus, the applied references fail to teach or suggest all the elements of claims 19 and 22.

Consequently, claims 19 and 22 are patentable over Brande in view of Masutani and Wysong, and the rejection of claims 19 and 22 under 35 U.S.C. §103(a) should be withdrawn.

**35 U.S.C. §103 - Claim 20:**

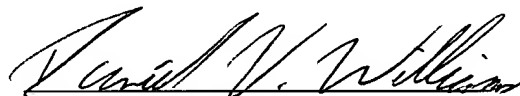
The Examiner rejects claim 20 under 35 U.S.C. §103(a) as being unpatentable over Brande in view of Masutani and Tsukada et al. (U.S. Patent No. 5,769,543 [hereinafter “Tsukada”]). Applicants respectfully traverse this rejection in view of the following remarks.

Claim 20 is patentable over Brande in view of Masutani and Tsukada because of the failure of Tsukada to make obvious the deficient teachings of Brande and Masutani. Further, the Examiner relies on Tsukada for the teaching of "lip parts." However, Brande actually discloses that "a lip seal is not satisfactory when operating at high temperatures with grease." (See col. 1, lines 49-50.) Also, Tsukada does not make up for the deficient teachings of Brande and Masutani in regard to the claimed projection that is "formed on" the retaining ring. Consequently, claim 20 is patentable over Brande in view of Masutani and Tsukada, and the rejection of claim 20 under 35 U.S.C. §103(a) should be withdrawn.

In view of the preceding remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local telephone number listed below.

A Petition for Extension of Time with appropriate fee accompanies this response. The USPTO is directed and authorized to charge all additional required fees (except the Issue Fee and/or the Publication Fee) to our Deposit Account No. 19-4880. Please also credit any overpayment to said Deposit Account.

Respectfully submitted,

  
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